

**BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

In the Matter of

**Verizon Wireless Petition for
Forbearance from the Commercial
Mobile Radio Services Number
Portability Obligation**

WT Docket No. 01-184

**REPLY COMMENTS OF
LEAP WIRELESS INTERNATIONAL**

LEAP WIRELESS INTERNATIONAL, INC.

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Leap Wireless International, Inc., on behalf of itself and its affiliated entities (collectively, “Leap”), hereby offers these reply comments in connection with the above-captioned proceeding.¹ Leap believes that implementation of number portability among wireless carriers will provide substantial public interest benefits, including increased competition and conservation of numbering resources. While number portability will not be costless, the cost to a carrier of rendering its system capable of number portability will be relatively minor – and more than offset by gains to the public interest. Leap therefore opposes any attempt to forestall or eliminate the number portability mandate.

Nevertheless, some carriers point out that achieving bilateral number portability – that is, to be able to port numbers both *in* and *out* – might entail costs beyond what would be required merely to port numbers *out*. To accommodate these concerns, Leap therefore proposes

¹ See *Public Notice*, WTB Seeks Comment on Wireless LNP Forbearance Petition Filed by Verizon Wireless, WT Dkt No. 01-184, DA 01-1872 (rel. Aug. 7, 2001).

a compromise solution: that the Commission affirm its number portability mandate, but clarify that compliance with that mandate requires only unilateral capability. The Commission should clarify that carriers need only be capable of porting numbers *out*, not that they need to port numbers *in*.

I. INTRODUCTION AND SUMMARY

Leap is an Entrepreneurs' Block PCS provider and a Small Business under the Commission's rules.² Through its Cricket subsidiaries, Leap provides wireless telephony in dozens of markets around the United States, and enters a new market about once every two weeks. Because of the extraordinary value of its service offering – unlimited “all you can talk” service for about \$30 a month – Leap brings wireless service within the reach of a previously underserved mass-market demographic. And when Leap enters a market, it provides stiff competition to the incumbent providers of wireless and wireline service.

Nonetheless, Leap believes that barriers remain to true competition. One of those barriers is under consideration in the current proceeding: the “lock-in” effect produced by a customer's inability to retain her phone number when she switches providers. Economists recognize this as a classic “switching cost,” which tends to lock consumers into their existing provider, even though a better or cheaper service might be available. In order to avoid the “cost” of switching phone numbers, a subscriber may endure inferior or more expensive service.

Maintaining customer lock-in is extremely important to incumbent providers because it sustains their profitability: So long as a customer is locked in, the carrier can extract from her a profit that it could not under perfect competition. It should therefore come as no

² See AirGate Wireless L.L.C. and Cricket Holdings, Inc., *Memorandum Opinion and Order*, 14 FCC Rcd 11,827 (WTB 1999), *aff'd*, Applications of AirGate Wireless, L.L.C., et al., FCC File Nos. 0000002035, et al. *Memorandum Opinion and Order* (rel. July 27, 2000).

surprise to the Commission that the incumbent providers appear to be nearly unanimous in opposing any measure that would reduce or eliminate that lock-in effect.

Leap believes that number portability will not require extraordinary capital outlays. Indeed, the vast majority of costs associated with number portability are costs that must also be incurred to implement number pooling. Moreover, the number portability opponents have tended to conflate costs that are necessary to fulfilling the Commission's number portability mandate (*i.e.*, those that are necessary to port numbers *out*) and costs that may be voluntary (*i.e.*, those that are necessary to port numbers *in*). To the extent that there is any ambiguity, the Commission should clarify that carriers need not offer porting-in capability to prospective customers. Leap believes that the market will probably force carriers to offer porting-in, as prospective customers will demand it. And what the market requires, the Commission need not. But incumbent carriers will not voluntarily implement porting-out capability: As the Commission recognized, it is to the incumbents' advantage to keep customers locked in.³

There is no question that the public will gain if carriers are forced to implement number portability. In addition to increasing competition – and producing the many benefits that flow from competition – number portability will also help to conserve numbering resources. Both directly through the implementation of LRN architecture and pooling capability, and indirectly by reducing the quantity of phone numbers that lie fallow in the “aging” process when customers switch carriers, the technology of number portability will help to conserve scarce numbering resources.

³ See Cellular Telecommunications Industry Association's Petition for Forbearance from Commercial Mobile Radio Services Number Portability Obligations and Telephone Number Portability, *Memorandum Opinion and Order*, 14 FCC Rcd. 3092 ¶ 41 (1999) (“*CTIA MO&O*”) (“In order for a wireless customer to switch wireless carriers while retaining its phone number, both carriers must have implemented LNP”).

Leap is a devout apostle of competition. Competition is good for Leap, of course, as people who have a choice tend to choose Leap. But more importantly, competition is good for the public, as it inevitably results in lower prices and better service. The Commission should enhance and increase competition – and thereby the public interest – by requiring carriers to let subscribers to take their phone numbers when they switch. The Commission should not forbear any longer from enforcing its number portability mandate.

II. LNP WILL BENEFIT THE PUBLIC INTEREST BY ENHANCING INTER-CARRIER COMPETITION.

Number portability promotes competition. From the outset, the Commission recognized that LNP “is important because customers . . . cannot now change carriers without also changing their telephone numbers.”⁴ Indeed, the Commission recognized, “the inability of customers to keep their telephone numbers when switching carriers . . . hinders the successful entrance of new service providers.”⁵ And the public interest benefits of competition are obvious: the Commission recently recognized that the increased competition induced by LNP, “would provide incentives for all carriers to provide innovative service offerings, higher quality services and lower prices.”⁶

Nor could LNP be implemented without regulatory intervention. Again, the Commission has recognized:

In order for a wireless customer to switch wireless carriers while retaining its phone number, *both carriers must have implemented LNP*. If certain carriers conclude that they will sustain a net loss in

⁴ Telephone Number Portability, *First Report and Order and Further Notice of Proposed Rulemaking*, 11 FCC Rcd. 8352, ¶ 157 (1996) (“*First R&O*”).

⁵ *Id.*

⁶ *CTIA MO&O* ¶40.

customers overall under a LNP scenario, they will have little, if any, incentive to implement LNP in the absence of a requirement.⁷

Indeed, the incumbent CMRS providers would prefer to avoid LNP compliance for precisely the same reason that the Commission should require it. The incumbents seek to dampen the prospect of LNP because – as they well know – it *will* increase competition.

A. LNP Reduces Anticompetitive “Lock-In”.

Telephone numbers pose a classic problem of “lock-in.” Economists have recognized that buyers must often bear costs when they switch from one brand or technology to another.⁸ These “switching costs” can become prohibitively expensive and effectively lock a buyer into her existing supplier. Even at the margins, lock-in occurs as the cost of switching erodes and eliminates the net benefits to a buyer of switching to a higher quality or less expensive supplier.

The “new economy” abounds with examples of consumer lock-in. For example, a Macintosh user might invest in software and a printer, she will certainly invest time in learning how to use all the functions of her machine, and she will probably trade files with other Mac users. So when it comes time for the Mac user to upgrade her computer, she is relatively disinclined to switch to a PC or Unix machine – even if those might offer better features for a lower price. As a well-known treatise explains, the Mac user has made “significant *durable investments in complementary assets* that are specific to that brand of machine.”⁹ The need to abandon and replace these durable investments leads to switching costs, and can effectively lock-in consumers.

⁷ CTIA MO&O ¶ 41 (emphasis added).

⁸ See generally, Carl Shapiro and Hal R. Varian, *Information Rules: A Strategic Guide to the Network Economy* (1999) at 103-134.

⁹ *Information Rules* at 104.

There are many kinds of lock-ins and associated switching costs. These include durable purchases, brand-specific training, contractual commitments and loyalty programs, among others.¹⁰ Telephone numbers, too, can impose switching costs. Today, once a wireless subscriber acquires a phone number, she becomes locked in: people know how to reach her using that phone number, and both she and they will incur a burden if she changes that number. In fact, in their treatise, *Information Rules*, Professor Carl Shapiro and Dean Hal R. Varian use telephone number portability as an *illustration* of the phenomenon they call “mass market lock-in”:

To illustrate how “small” switching costs can have a profound impact on strategies and market outcomes, one need only follow the current contentious debate in telecommunications regarding “number portability” Everyone recognizes that number portability is critical if local telephone competition is to become a reality. The cost per person of changing phone numbers may not be huge, but when you add up these costs across millions of telephone subscribers, the stakes grow large.¹¹

The very fact that incumbent carriers are so opposed to LNP illustrates what Shapiro and Varian recognize in their treatise: indeed, the stakes *are* large.

Shapiro and Varian recognize that switching costs are the key to valuing an installed customer base – *especially* in a competitive industry.¹² This is because switching costs determine the amount of “extra” profit a supplier will enjoy, in addition to any profit it can reap through superior technology or efficiency. “As a general principle, if your rivals have cost and quality similar to yours, so that the market is highly competitive, the profits that you earn from a

¹⁰ *Information Rules* at 117.

¹¹ *Information Rules* at 108-109.

¹² For this reason, it is unclear whether the existence even of a large number of competing carriers could ever obviate the need for number portability.

customer – on a going forward, present-value basis – *exactly equal the total switching costs.*”¹³

To illustrate this concept Shapiro and Varian again choose the example of number portability:

Take a customer for whom the hassle of switching phone numbers has a monetary cost of \$100. Our valuation principle says that the incumbent telephone company can earn precisely \$100 in extra profits from this customer, in present value terms. This might come in the form of a \$1 per month premium over the rates charged by competitors (since \$1 per month in perpetuity has a present value of roughly \$100 at conventional interest rates).¹⁴

Plainly, the lack of number portability imposes substantial switching costs on CMRS consumers, and thereby permits carriers to charge a premium over that which the market would otherwise bear.

B. Wireless Phone Numbers Produce a Lock-In Effect.

There is no basis to claims that wireless phone numbers are somehow less susceptible to the lock-in effect. To the extent that there was any merit to this suggestion, it was a product of the rates and pricing plans that have predominated among the major incumbent carriers. By charging high per-minute rates for all calls, some carriers have tended to discourage their customers from widely disseminating their phone numbers. With fewer people invested in the phone number, the theory went, switching costs would be relatively less than with wireline numbers. Of course, there were still switching costs even under these old pricing structures that discouraged wider dissemination. But this justification for treating wireless phone numbers differently from wireline in terms of their portability has now largely faded away.

Today, the predominant wireless plans carry features that encourage subscribers to give out their phone numbers and to receive incoming calls. Prices have come down, so that

¹³ *Information Rules* at 114 (emphasis added).

¹⁴ *Id.*

per-minute costs are not as prohibitive as they once were. Carriers such as Sprint PCS offer plans with “free first incoming minutes,” other carriers offer “free nights and weekends,” and high-volume “bucket” plans have become the norm. These rate structures tend to encourage wireless subscribers to be more receptive toward receiving phone calls, and toward using their wireless phones in a way that more closely resembles wireline usage.

Leap’s Cricket plan is perhaps the ultimate manifestation of this trend. The Cricket service offers customers unlimited airtime in their local calling area – where they “live work and play” – for a flat monthly fee. For \$29.95 to \$34.95, depending on the market, subscribers get “all you can talk” wireless service. The Cricket model resembles landline service in most everything except the landline’s immobility. And customers tend to use Cricket as they would a landline service. They place and receive calls freely, and appear to have no particular reservations about giving out their wireless number just as they would a wireline number. Indeed, many Cricket customers have replaced their landlines entirely; many more use Cricket as their primary phone – choosing to retain a wireline connection for dial-up Internet or some other reason. And many customers use Cricket as a “second line,” for teenagers or home office use. Cricket customers tend to receive almost as many calls as they place, and appear to disseminate their wireless numbers about as widely as one would a landline number.

This phenomenon is not unique to Cricket customers. Nationwide, between three and five percent of wireless users have replaced their landlines entirely.¹⁵ Lower costs, “bucket” pricing structures, increased battery lives, more reliable service, and other factors have led consumers to use wireless phones more and more as they do wireline. About a third of wireless

¹⁵ Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993, Annual Report and Analysis of Competitive Market Conditions With Respect to Commercial Mobile Services, Sixth Report, FCC 01-192 (rel. July 17, 2001) (“*Sixth CMRS Report*”) at 32 (citing Judy Saries, *Wireless Users Hanging Up On Landline Phones*, Nashville Business Journal, Feb. 2, 2001).

users say that they would rather give up their landline telephone than their wireless.¹⁶ As more and more consumers use wireless in ways that resemble wireline, they use their telephone numbers in ways that resemble wireline usage: giving them out without reservation.

For these people, then, the switching cost of obtaining a new phone number would be significant. It would mean contacting as many people as possible with the new number – from business associates to day care providers – requiring all of them to change their records, and inevitably still missing some calls. Anecdotal evidence suggests that some consumers deliberately retain their old wireless service for a month or more after they have switched to the new service, with a message on the voicemail providing callers with the new number – a dramatic illustration of the switching costs at issue. Furthermore, many users rely on their wireless phone for business purposes – particularly those such as real estate professionals, trial attorneys, traveling salesmen and others whose work often takes place outside a fixed office. Many of these have invested in letterhead, business cards, advertisements, professional directories and the like.¹⁷ For them, phone number switching costs would be extremely high.¹⁸ Gone is the notion that “people don’t care about wireless phone numbers.” People treat their wireless phones more and more like landlines, and many find themselves locked in by their phone numbers.

¹⁶ *Sixth CMRS Report* at 36 (citing *Will Wireless Phones Make Traditional Home Telephones Obsolete?*, News Release, Consumer Electronics Association (April 6, 2000)).

¹⁷ In an extremely unscientific sample, for example, the undersigned found that about half of all Latham & Watkins attorneys provided a wireless number in the Latham & Watkins internal telephone directory.

¹⁸ The importance of these switching costs is magnified by the fact that high-volume users will, because they have disseminated their phone numbers among the most people, tend to have the highest switching costs. Because these high-volume users are also the most profitable to (and sought-after by) wireless providers, their proclivities exert a disproportionate influence on most carriers’ rate structures. Thus, if a carrier knows that because of the lock-in effect it can retain its high-end users, it may sustain an across-the-board rate increase.

C. LNP is Essential to a Fully Competitive CMRS Marketplace.

The opponents of LNP are incorrect in their assertion that the current state of CMRS competition obviates the need for LNP.

As an initial matter, though wireless competition has improved, it still falls short of what it could be. A significant portion of the population (approximately ten percent) still lives with the cellular duopoly; fewer than half live in markets that have six or more carriers.¹⁹ Prices are down, to be sure, but nationwide penetration lags at 39 percent: carriers have established price and service offerings that fail to appeal to sixty percent of Americans.²⁰ In fact, the average HHI in the top 25 markets nationwide is 2611: well above the level considered “highly concentrated” by antitrust authorities.²¹

Moreover, even to the extent that entry has occurred, and that wireless prices have fallen and service improved, that still does not mean that the CMRS marketplace is competitive in any absolute sense. The Commission has recognized that in the context of a rapidly expanding marketplace, new entry may be indicative of factors relating more to the potential for growth overall, rather than a truly competitive marketplace.²²

Most importantly, as Shapiro and Varian demonstrate, the existence of multiple carriers or multiple suppliers does not eliminate the lock-in effect, nor the premium that customer lock-in permits carriers to charge. In fact, the lock-in effect is *more* important in

¹⁹ *Sixth CMRS Report* at 8.

²⁰ *Id.*

²¹ See John B. Hayes, “CMRS HHIs from Customer Share Data: An Update” filed with comments of Sprint PCS in WT Docket No. 01-14 (April 13, 2001).

²² See Applications for Consent to the Transfer and Control of Licenses and Section 214 Authorizations by Time Warner Inc. and America Online Inc., *Memorandum Opinion and Order*, CS Dkt No. 00-30, ¶ 162 (rel. Jan. 22, 2000).

otherwise competitive markets, as the degree of lock-in dictates the amount of any anticompetitive profit that can be made.²³ For example, Shapiro and Varian point out, even though an AOL user could choose among literally dozens of other ISPs, all offering more or less the same service, AOL users become locked in by their email address.²⁴ One estimate of the value associated with email address lock-in – again, even given the presence of multiple carriers in the same space – can be discerned by examination of the purchase price that Microsoft paid for Hotmail.²⁵ Microsoft paid between \$300 million and \$400 million for Hotmail’s 9.5 million subscribers, even though it could have created a virtually identical product from scratch, and marketed directly against Hotmail. Yet Microsoft valued Hotmail’s installed subscribership based on its understanding that those customers were locked in by their email addresses, and would avoid switching providers.²⁶

The same holds true for CMRS. Even though there may be several providers in a given area, still this does not prevent each of them from charging a lock-in premium.

The lock-in effect is fundamentally anticompetitive. It limits consumer’s choices, and allows incumbents to charge higher than competitive rates. The Commission should reduce wireless switching costs, and thereby promote competition, by requiring wireless LNP.

III. LNP CAN BE ACHIEVED AT A REASONABLE COST.

There is no question that LNP *can* be implemented. Unlike E911 Phase II or certain other technological mandates, equipment and software is now generally available to

²³ *Information Rules* at 114.

²⁴ *See Information Rules* at 109.

²⁵ *Id.*

²⁶ *See id.* at 109-110.

support LNP. Indeed, wireline carriers have successfully implemented number portability for years now. The only question is how much it will cost.

A. LNP is an Ordinary Business Expense.

Contrary to the cries of some other carriers, Leap believes that number portability will not be particularly expensive to implement, relative to the infrastructure and operating costs that already characterize the wireless business. Leap is now in the process of finalizing its number portability and number pooling solutions, and will be in full compliance with both mandates prior to the November 24, 2002 deadline. Leap believes that hardware and software costs associated with Local Routing Number (LRN) network architecture – which would be necessary for number pooling even absent number portability – will cost approximately \$6 million. Leap estimates that LNP will require an additional \$1.5 to \$2 million in integration costs, *i.e.*, costs associated with upgrading the various systems, such as switching and billing, that would be touched by LNP. This estimate includes all hardware and software costs, and the cost of testing and troubleshooting.

For Leap, then, the incremental capital expenditure necessary to implement number portability will be \$1.5 to \$2 million dollars. This would represent less than one-half of one percent of Leap's total capital expenditures over the past year (\$616 million).²⁷ This is an ordinary cost of business, not some especially debilitating burden.

The same would seem to hold true for other carriers. For example, Sprint estimated its own cost of LNP implementation at \$26 million.²⁸ Yet it spent \$3.327 *billion* in

²⁷ Capital expenditure figures for 3Q '00 through 2Q '01; all data obtained from Legg Mason Walker, Inc., *The Wireless Industry Scorecard – 2Q 2001* (2001) ("*Wireless Scorecard*") at 76.

²⁸ See Sprint PCS Comments at 6.

capital expenditures over the past year.²⁹ So Sprint's LNP cost would represent a fraction of one percent of its capital expenditures – for a single year. Even by the carriers' own estimates, their LNP-related capital expenditures will not be significant.

Nor are the ongoing costs of LNP implementation insurmountable – or even particularly significant. Sprint saw more than \$7 billion in revenues from service over the past year.³⁰ The \$50 million that Sprint says it will spend in recurring LNP-related costs³¹ again represents a fraction of one percent of that amount. Cingular lumps together the capital expenditures and recurring expenses it believes it will incur to implement LNP, and estimates that it will cost \$250 million over the next five years.³² By way of comparison, Cingular spent \$2.6 billion on capital expenditures over the past year, and took in \$12.4 billion in service revenues.³³ Annualized, Cingular's \$250 million (five-year) expenditure represents about one-third of one percent of those combined numbers.

To be sure, number portability will cost money. But it is achievable. And it can be achieved for a small fraction of the overall cost of doing business in wireless.

B. Carriers Need Not Incur the Costs Related to Porting-In Numbers.

Nevertheless, Leap believes that those who oppose or seek to delay LNP implementation raise some legitimate concerns. In its Petition, Verizon details several categories of costs that form the basis for its concerns. Among others, Verizon expresses concern at the cost of:

²⁹ See *Wireless Scorecard* at 76.

³⁰ See *id.* at 67.

³¹ See Sprint PCS Comments at 6.

³² See Cingular Wireless Comments at 3.

³³ See *Wireless Scorecard* at 67, 76.

- Point of sale systems to accommodate porting-in numbers;
- Training for sales agents and customer care representatives to make them understand the process and issues related to porting-in numbers;
- Billing system upgrades to accommodate numbers that are ported-in; and
- Call centers devoted to problems from ported-in customers.

Importantly, each of these costs is attributable only to *porting-in*, not *porting-out*.

That is, a carrier could avoid these costs if it is not required to port-in numbers. The Commission should clarify that carriers need not incur these costs. They must of course implement the basic architecture that will allow customers to port-out their phone numbers. But they need not allow porting-in. The Commission has recognized that the basis for its LNP mandate is the fact that no carrier can port-in unless the others make their systems capable of porting-out.³⁴ But that is as far as the mandate need extend. Carriers should not be required to offer prospective customers the opportunity to bring with them their old numbers from other carriers.

Leap plans to advertise and promote the fact that wireless subscribers can switch to Cricket without switching phone numbers. Leap understands that it will incur some costs to support the porting-in capability. But any carrier that chooses not to offer this service should be free to do so under the Commission's rules. And by so doing, any carrier can avoid many of the costs that Verizon has identified.

The fact remains that LNP will not be prohibitively costly. Even those opposed to LNP have produced estimates of implementation costs that are not unreasonably high. All told, and presumably including its port-in costs that would not be necessary to incur, Cingular claims

³⁴ CTIA MO&O ¶ 41.

that it will have to spend \$250 million over the next five years.³⁵ But that works out to less than 20 cents per month for each of its 21 million subscribers.³⁶ This is not an unreasonable burden in order to realize for those subscribers the benefits of true competition.

IV. LNP ARCHITECTURE WILL CONSERVE NUMBERS

The Commission has recognized that “one of the public interest benefits of LNP is its potential to further the efficient use of numbering resources.”³⁷ Number exhaust is a problem that affects LEC and CMRS carriers alike. The efficient use of numbering resources serves the public interest by ensuring that “carriers have access to the numbering resources that they need to compete and bring new and innovative services to the consumer marketplace.”³⁸ In fact, one reason the Commission required CMRS carriers to participate in pooling once they acquired LNP capability was to allow those carriers to contribute to increased numbering efficiencies.³⁹

In addition to the direct positive impact of LNP on competition, Leap supports the implementation of LNP by CMRS carriers as a means of promoting the important goal of number conservation. Leap itself is an innovative new carrier whose growth in certain markets has been severely hampered by number exhaust. In Pittsburgh, for example, Leap recently was forced by a shortage of phone numbers to dramatically curtail its marketing efforts in a deliberate

³⁵ See Cingular Wireless Comments at 3.

³⁶ Subscriber figures: *Wireless Scorecard* at 66.

³⁷ *Cellular Telecommunications Industry Association's Petition for Forbearance From Commercial Mobile Radio Services Number Portability Obligations and Telephone Number Portability*, Order on Reconsideration, 15 FCC Rcd 4727, 4731 n.22 (rel. Feb. 23, 2000) (“*CMRS LNP Forbearance Order on Reconsideration*”).

³⁸ *Numbering Resource Optimization*, Second Report and Order, Order on Reconsideration and Second Further Notice of Proposed Rulemaking, 16 FCC Rcd 306, 310 ¶ 4 (rel. Dec. 29, 2000) (“*Second Report and Order*”).

³⁹ See *id.*

effort to slow its rate of subscriber growth and number utilization. Even though it deliberately slowed its subscriber growth, still Leap ran out of phone numbers in the 412 area code before it was able to receive more.⁴⁰ For that period of time, then, Leap's viability as a competitor in central Pittsburgh was severely reduced by an artificial scarcity of telephone numbers.

Leap believes that ensuring carriers have adequate access to numbers necessary serve consumers is important because it promotes competition in the marketplace. As the Commission has acknowledged, "[f]or competition to continue to develop, all carriers must have access to numbering resources." By fostering numbering conservation, the implementation of LNP by CMRS carriers will also further competition by allowing new entrants access to the numbering resources necessary to compete in the marketplace.⁴¹

Leap believes the implementation of LNP technology will promote number conservation in two ways. First, the ability of consumers to port numbers will reduce the detrimental effects of churn on the efficient use of numbering resources.⁴² Second, LNP-based technology is necessary for the advancement of pooling and other numbering conservation strategies advanced by both the Commission and state regulatory bodies.⁴³

⁴⁰ See Leap Wireless International, Inc. *Request for Waiver of Numbering Resource Utilization Threshold Requirement of Commission Rule 52.15(h)*, (filed July 17, 2001); Leap Wireless International, Inc. *Request for Emergency Assignment of Three NXX Codes in the 412 NPA and Request for Confidentiality* (filed July 27, 2001).

⁴¹ *Petition for Declaratory Ruling and Request for Expedited Action on the July 15, 1997 Order of the Pennsylvania Public Utility Commission Regarding Area Codes 412, 610, 215, and 717*, Memorandum Opinion and Order and Order on Reconsideration, 13 FCC Rcd 19009, 19033 ¶ 38 (rel. Sept. 1998).

⁴² This benefit of LNP architecture was not addressed in the Verizon petition which instead solely addressed the benefits of pooling. Comments to the proceeding have noted the inherent benefit number porting has on reducing the supply of aging numbers. See e.g., *Comments of Public Utility Commission* (filed Sept. 21, 2001) and *Comments of National Association of Regulatory Utility Commissioners*, (filed Sept. 21, 2001).

⁴³ In its petition, Verizon argues that a complete upgrade to LNP-based technology is not a prerequisite for number pooling. However, in their comments to this proceeding, several state regulatory commissions have pointed out that the benefit to number conservation from pooling requirements may not be realized without the implementation of complete LNP technology. See *Comments of New Hampshire Public Utility Commission* (filed Sept. 21, 2001).

A. LNP Will Increase the Stock of Usable Numbers.

By allowing consumers to port numbers, LNP will foster the efficient use of numbering resources by reducing the occurrence “aged” numbers caused by churn in the wireless industry. Churn is a fact of life in the wireless industry: industrywide, wireless providers maintained an average churn rate of 2.3 percent in the second quarter of 2001.⁴⁴ One unfortunate side effect of churn is that it causes scarce phone numbers to lie fallow. Every time a customer switches service providers, her old number must be “aged” for a period of time before it is made available for reassignment to another subscriber.⁴⁵ The aging process cannot be avoided without compromising service integrity. Indeed, the Commission has noted that carriers must typically age a number for 90 days before reassigning it to a new customer.⁴⁶

A recent study by Telephia found that 27 percent of wireless customers who paid for service in the past year had churned at some time during that year: twelve percent of subscribers had switched providers, and fifteen percent had discontinued service entirely.⁴⁷ With approximately 120 million wireless subscribers in the United States,⁴⁸ 27 percent churn (32.4 million customers) combined with 90 day aging results in 8.1 million numbers sitting idle at any

(“*New Hampshire Comments*”) and *Comments of Michigan Public Service Commission* (filed Sept. 21, 2001) (“*Michigan Comments*”). Moreover, the Commission acknowledged that “pooling and LNP involve substantially similar technical modifications, carriers should be able to implement pooling in the same time frame that they achieve LNP capability.” *Second Report and Order*, 16 FCC Rcd at 329 ¶ 50.

⁴⁴ See *Wireless Scorecard* at 12.

⁴⁵ *Numbering Resource Optimization*, Report and Order and Further Notice of Proposed Rulemaking, 15 FCC Rcd 7574, 7590 ¶ 29 (rel. Mar. 31, 1999).

⁴⁶ See *id.*

⁴⁷ See Michael Pastore, *Wireless Voice has Growth Potential in U.S. Markets*, available at http://cyberatlas.internet.com/markets/wireless/article/0,,10094_720971,00.html.

⁴⁸ *Wireless Scorecard* at 66.

given moment.⁴⁹ For those twelve percent of subscribers (14.4 million) who merely switched providers, however, number portability conserves numbers by avoiding any reassignment. At any given moment, an additional 3.6 million phone numbers would be available. In Pittsburgh, Leap could have used just one or two additional NXX blocks to tide it over the crisis time. Number portability would instantly provide the equivalent of 360 new NXX blocks.

B. Number Pooling Will Use the Same Network Architecture as Will LNP.

By far the greatest expense associated with LNP is the adoption of Local Routing Number (LRN) network architecture. In Leap's case, network upgrades required to implement LRN will cost approximately \$6 million. The additional cost to implement full LNP capability will be approximately \$1.5 million to \$2 million, plus additional customer care costs primarily related to implementing customer port-ins (and thus avoidable by carriers who prefer not to offer port-in to prospective customers). But as many commenters recognize, LRN functionality is not limited to LNP implementation. LRN architecture is also the cornerstone of thousands-block number pooling. The Commission should not allow carriers to avoid implementing LRN architecture, and to escape their pooling obligation.

The Commission has stated that the "implementation of thousands-block pooling is essential to extending the life of the NANP by making the use of NXX codes more efficient."⁵⁰ State utility commissions around the country have used pooling trials as a means of promoting the efficient use of numbering resources. The state utility commissions have argued that "the

⁴⁹ The comments of state public utility commissions show strong evidence of the detrimental effects of churn and number aging have on the efficient use of numbers. For example, the Ohio PUC states that in the absence of number porting, the preponderance of aging numbers causes the "limited supply of telephone numbers " to be "needlessly taxed." *See Comments of the Public Utilities Commission of Ohio* (filed Sept. 21, 2001). Likewise the Public Utility Commission of Texas quantified the amount of numbers stranded in Texas due to churn in the wireless industry at 2,365,972 assuming 7,553,240 numbers available for assignment and 30% churn. *See Comments of the Public Utilities Commission of Texas* (filed Sept. 21, 2001).

⁵⁰ *Second Report and Order*, 16 FCC Rcd 306, ¶ 49.

potential benefits of LNP-based number optimization measures, such as thousands-block number pooling, may be significantly diminished if wireless carriers are not capable of participating.”⁵¹ The Commission also has acknowledged that the “public interest could be jeopardized if CMRS carriers cannot participate in LNP-based conservation techniques such as number pooling” after the revised November, 2002 deadline.⁵²

Leap advocates a complete upgrade to LNP as a means of optimizing the benefit of these number conservation measures. Leap’s support (through its Cricket subsidiary) for LNP and its recognition of LNP’s beneficial affect on number conservation were recently applauded by a Commissioner of the Pennsylvania Public Utility Commission, a body which has used pooling trials as means of conserving numbering resources: “Cricket, in contrast to other wireless carriers, supports Local Number Portability for its wireless customers. This Company’s forward-looking approach has a direct impact in Pennsylvania.”⁵³

In addition to providing the technological foundation for pooling, other contemplated number conservation initiatives will require LNP-capability. For example, some have suggested that the free market would best handle the allocation of numbers among carriers. But the organization of any secondary market for numbers would require that carriers be LNP-capable.⁵⁴ Leap believes that the Commission should explore this and other means of number conservation, and should not allow carriers to escape their obligation to implement the technical capabilities that must necessarily precede such market-based numbering solutions.

⁵¹ *CTIA MO&O* ¶ 15 (rel. Feb. 9, 1999); *See also New Hampshire Comments* and *Michigan Comments*.

⁵² *See CTIA MO&O* ¶ 48.

⁵³ *Statement of Commissioner Dr. Aaron Wilson Jr.*, Pennsylvania Public Utility Commission, (rel. Sept. 26, 2001).

⁵⁴ *See Second Report and Order*, 16 FCC Rcd at 377 ¶ 177.

C. The Commission Should Reject Suggestions that Pooling be Eliminated.

Finally, Leap strongly opposes the suggestion of certain carriers that the Commission should forbear from enforcing all CMRS number portability requirements.⁵⁵ Pooling is critical to the efficient allocation and use of scarce telephone numbers. And only the implementation of complete LRN-based technology (enabling both porting and pooling) will maximize the benefits gleaned from numbering efficiencies and number conservation initiatives. Indeed, the suggestion by some carriers that the Commission should also eliminate pooling tends to show what may be the true motive of some carriers in this proceeding: First they will attack the portability requirement, and then once the only rationale for the adoption of LRN-based architecture is thousands block pooling, they will seek ways to delay their implementation of that mandate. The Commission should reject out of hand the commenters' suggestions that it forbear from enforcing number pooling, and likewise it should require the timely implementation of number portability.

V. THE COMMISSION SHOULD REJECT VERIZON'S PROPOSED RULE CHANGE.

Verizon has now proposed "permanent forbearance" from CMRS LNP obligations – that is, permanent relief from the terms of the rule.⁵⁶ Leap agrees with WorldCom's assessment that "[a]t bottom, Verizon Wireless' Petition is nothing more than an untimely, unauthorized and unsubstantiated petition for further reconsideration."⁵⁷ The Commission should reject Verizon's proposed rule change.

⁵⁵ See *Comments of the Rural Cellular Association* (filed Sept. 21, 2001).

⁵⁶ See generally, *Petition*.

⁵⁷ WorldCom Comments at 2.

A. No Evidence Would Support the Proposed Departure from Precedent.

The courts “emphatically require[] that administrative agencies adhere to their own precedents or explain any deviations from them.”⁵⁸ “Though the agency’s discretion is unfettered at the outset,” that discretion becomes constrained once it follows a given policy, and “an irrational departure from that policy” will be overturned upon review.⁵⁹

Once an agency has determined that a particular course of action best fulfills its statutory mandate, it bears a heavy burden to demonstrate facts or circumstances that lead it to adopt a different course of action.⁶⁰ As the D.C. Circuit has reiterated numerous times, altering or reversing an existing policy requires an affirmative showing of the change in circumstances that justify a departure from prior policy: “[A]n agency acts arbitrarily and capriciously when it abruptly departs from a position it previously held without satisfactorily explaining its reason for doing so. Indeed, where an agency departs from established precedent without a reasoned explanation, its decision will be vacated as arbitrary and capricious.”⁶¹

The Commission, having previously determined that local number portability was in the public interest, now must thoroughly explain any change in its interpretation. Yet courts remain skeptical of such changes in interpretation: More than once, the Supreme Court has reiterated that “[a]n agency interpretation of a relevant provision which conflicts with the

⁵⁸ See, e.g., *Greyhound Corp. v. ICC*, 551 F.2d 414, 416 (D.C. Cir. 1977) (vacating an order of the ICC for failure to explain deviation from the agency’s precedent).

⁵⁹ *INS v. Yueh-Shaio Yang*, 519 U.S. 26, 32 (1996).

⁶⁰ See *Atchison*, 412 U.S. 800 at 807 (“A settled course of behavior embodies the agency’s informed judgment that, by pursuing that course, it will carry out the policies committed to it by Congress”).

⁶¹ See *Wisconsin Valley Improvement v. FERC*, 236 F.3d 738 (D.C. Cir. 2001) (finding a sudden change in fee structures lacking a proper supporting explanation arbitrary and capricious) (internal quotations and citations omitted). See also *AT&T v. FCC*, 974 F.2d 1351, 1355 (D.C. Cir. 1992) (faulting the FCC for failing to explain why it “changed the original price cap rules” and concluding that the Commission’s “Reconsideration Order is arbitrary and capricious for want of an adequate explanation”).

agency's earlier interpretation is entitled to considerably less deference than a consistently held agency view."⁶² The Commission bears a heavy burden to demonstrate that its prior determinations should now be set aside, and on the current record it cannot sustain that burden.

B. As a Policy Matter, the FCC Should Not Change the Rules in Mid-Course.

Nor, as a policy matter, should the Commission reward those carriers who ignore its rules. Leap has played by the rules. It has committed capital and personnel resources towards developing and implementing local number portability. And perhaps more importantly, Leap has developed a business strategy that relies on the sort of open competition that number portability will achieve. Leap has designed a low-cost, high-quality service offering that depends for its success in part on its ability to attract customers by virtue of its superior value. Without number portability, customers may be relatively less willing to switch to Leap's service, and Leap's business may suffer accordingly. The Commission should not change the rules in the middle of the game. It should not punish carriers like Leap who have made plans in reliance on the Commission's rules.

VI. CONCLUSION

Leap is committed to local number portability, and believes that LNP is a fundamental precondition to true intercarrier competition. Leap will implement LNP. And Leap will do so regardless of whether the Commission maintains its rules intact, or whether it accedes to Verizon's request.

Leap is so confident in the value of its service that it believes it can compete directly with *any* carrier, landline or wireless, from whom it is able to port numbers. And even though only a portion of Leap's business is landline replacement, Leap believes that the modest

⁶² *INS v. Cardoza-Fonseca*, 480 U.S. 421, 446 (1987) (quoting *Watt v. Alaska*, 451 U.S. 259, 273 (1981)).

investment required for LNP capability will be justified by its enhanced ability to compete with wireline carriers. But by the same token, Leap believes that it can compete more effectively with the incumbent wireless providers once it is able to port numbers from them. There can be no doubt that an installed base of customers is likely to tolerate inferior service and supra-competitive prices, so long as their switching costs remain high. True competition is hindered by economic “friction,” such as the lock-in effect that occurs when customers cannot port numbers among one another.

As Shapiro and Varian state in their classic treatise, “number portability is critical if local telephone competition is to become a reality.”⁶³ The Commission should promote inter-carrier competition, and should reaffirm its number portability mandate.

Respectfully Submitted,

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⁶³ *Information Rules* at 109.